The First Afghan National Army T-62 Tank Gunnery

by Captain Jonathan Byrom and Captain Aaron Parker

As the 11 members of the Blackhorse armor embedded trainer team wearily deplaned the C17 in the middle of the early-June night at the blacked-out Kabul airport, they had no clue as to the challenges that waited. Who knew that months earlier, numerous dilapidated T-62 tanks were delivered on heavy equipment transports and then towed to position in the ankle-deep dust of the motor pool. Polycharki, the future home of the Afghan National Army, would be home for the next 5 months.

The team's ultimate mission was to motivate Afghan soldiers to train as a quick-reaction force for the Central Afghanistan Corps. The team, made up of one major, four captains, one lieutenant, one first sergeant, and three sergeants first class, began the arduous task of preparing the foreign soldiers for combat. To prepare the battalion for combat, we identified the top priority of teaching crews to accurately fire tanks as quickly as possible. This abbreviated journey toward the first gunnery for the Afghan National Army was a wild ride and led to many lessons that we want to share with the armor community as other teams prepare to train democratic armies in Iraq and other parts of the world.

Train Up

The first step toward gunnery for Afghan soldiers was the train up on the T-62. The trainer team decided to use the U.S. Army's method of training crews for a tank crew gunnery skills test (TCGST). The first issue that arose in developing this skills test was that the team had no training on the T-62 tank. Our only means to learn the tank was through a Romanian mobile training team. We spent numerous hours climbing around the turret with these Romanians as they explained the operation of the gun system. These Romanian T-62 experts proved helpful both in teaching the Afghan crews and teaching the Americans enough about the tank that we could guide training toward the common goal of firing gunnery.

Another method used in training the Afghan crews was to draw from their internal knowledge of the T-62 tank. The company commander, 1st Company, 3d Battalion, 3d Brigade, Central Afghan Corps, had been fighting in wars for the past 14 years (he was only 28 years old), and had commanded a tank company against the Taliban in the defense of Bagram. He knew the tank intimately and was extremely valuable in teaching his soldiers and evaluating them during training.

Our three master gunners on the team applied these sources of knowledge to create a T-62 TCGST. Although there could be much debate about which tasks to include in this list, our gunnery experts chose the most important tasks to master to conduct a safe and efficient gunnery. The final product consisted of:

- Station 1 – ammunition identification.
- Station 2 – vehicle identification.
- Station 3 – PKT 7.62mm machinegun.
- Station 4 – prepare the T-62 turret for operation.
- Station 5 – boresight the T-62 tank.
- Station 6 – clear and load the 115mm main gun.
- Station 7 – perform misfire procedures for the T-62 main gun.

The first Afghan TCGST took place on a hot and dusty day in late-August 2003. The trainer team for 1st Company spent the morning in the motor pool on the turret tasks, coordinating with the Romanian soldiers, as they tested the leaders of the Afghan National Army. They then supervised the Afghan leaders as they tested their soldiers. This system of train-the-tester was efficient and allowed the entire company to test in one morning. We learned during the testing that the week of classes taught by the Romanian trainers had been very effective in providing the groundwork for basic T-62 operations. The trainer team noticed, though, that the best teachers for the young Afghan privates and sergeants were the experienced Afghan leaders — the platoon leaders and company commander. Unlike the U.S. Army, which takes prides in the expertise of its senior noncommissioned officers, the new Afghan Army relies heavily on their officers because they were chosen for these leader positions due to their combat experience and education level.

We finished the day by focusing on the vehicle identification testing. Afghan soldiers were especially interested in the vehicles of their neighboring countries. We briefed the normal slides that all U.S. tank battalions use, focusing on Soviet, American, and European vehicles; however, the soldiers asked many questions about neighboring countries' vehicles, such as Iran, Pakistan, India, and China. For those teams preparing to train Iraq's emerging army, we recommend perusing *Jane's* vehicle identification books prior to these types of classes. Another problem during the vehicle identification testing was that over 50 percent of the company was illiterate. We solved this problem by testing these soldiers verbally.

The other obstacle encountered during the TCGST testing was acquiring the PKT coaxial machine gun. We discovered that the Afghan National Army does not own any PKTs. Therefore, we focused on the loader's 12.7mm DShK machine gun, which the Afghanistan ministry of defense provided days earlier. Because of the absence of the coaxial machine gun, we were unable to conduct a traditional Table V during this first gunnery, or incorporate coaxial machine gun engagements into the tables. We did conduct a familiarization fire with the 12.7-mm loader's machine gun to give the crews some machine gun capability with their tanks. The trainer team's mission of preparing the Afghan National Army for combat and security missions forced us to modify our vision of the perfect T-62 gunnery. We trained the Afghan National Army on the weapons they already had in their possession, in case they received urgent missions to conduct checkpoint and presence patrol operations in the tumultuous world of Afghan politics.

Range Set Up and Support

After verifying the basic tank gunnery skills of 1st Company, the trainer team began the arduous task of training 3d Company on how to set-up and support a tank gunnery range. Members of the trainer team received this assignment and set to work on this task. In the beginning, there were many coordination areas to cover. To identify logistics requirements for gunnery support, 3d Company trainers set-up a coordination meeting with the battalion staff and headquarters company elements. Once all parties involved in the gunnery execution understood what they where expected to do, 3d Company trainers conducted a reconnaissance of the gunnery range, with the supporting company commander, and developed a range plan for support assets. The focus of this recon was the organization of the gunnery administration area, ammunition point, the security guard force positions, and the medical area. As we completed the diagram for the range set-up, all of the resupply factors were identified.

The embedded trainers' goal was to ensure that the gunnery support would set the standard for future gunneries, and reinforce the availability of resupply through contractors until the battalion could become logistically self-sufficient. Our trainer team established guidelines in the following weeks, and Afghan leaders and the trainer team executed all control measures for range operations and support execution on 6 September 2003. The battalion completed a final planning/support recon and coordination meeting prior to day 1 of the tank gunnery. This coordination meeting settled any unresolved issues or supply shortfalls and ensured efficient execution of the range.

Trainer team members used the planning process to assist the support company commander and battalion S3 in developing a battalion T-62 tank gunnery standard operating procedure (SOP). This SOP clarified for the battalion the process of how to identify, establish, assess, develop, and coordinate all executions of a standard T-62 tank gunnery range. It also provided guidance for company-level small arms ranges and live-fire exercises. This enabled the battalion to execute a 2-week gunnery using the tools and information described within the SOP for future gunneries. Focusing on support prior to execution yielded huge benefits during the gunnery and set the standard for future tank gunneries.

Range Execution

The first day of gunnery fell on a Saturday in early September following a week of mechanical and electrical remote tank firing. The Afghans found this foreign idea of firing the tank while outside ludicrous, but nonetheless conducted the mandatory test-fire of the 40-year-old vintage tanks. To our surprise, every tank fired, no turrets were sent into the air, nor were any breeches blown out of battery. Gunnery began on schedule. We found it interesting that the armor battalion commander, a former general in the fight against the Taliban, cancelled weekend duty for the Afghan tankers because he did not want them to lose focus prior to this historic day.

The first safety briefing to the firing crews was conducted early in the morning; then the company commander was provided a translated copy of the briefing for the following days on the range. The trainer team used this method of teaching — show them once, then have

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them execute — because we found it to be very successful. The Afghan soldier's paradigm of army operations and systems differs greatly from the U.S. Army's methods. This difference in range execution created problems when we did not use both a rehearsal and an embedded trainer to augment the explanation of our systems to show the Afghans what we thought right looked like.

The gunnery tables put together by our outstanding team of master gunners consisted of three tables. The first table was the typical Tank Table IV, consisting of the tank crew proficiency course. We then designed a Tank Table V, the machine gun table, followed by a culminating Tank Table VI or qualification table. The toughest obstacle was the range. The only targets we could use were hard targets between the ranges of 400 and 1900 meters. Also, we could only fire from four concrete pads, eliminating the option of firing on the move. Range control dictated that we only fire from these pads because dismounted infantry uses the multipurpose range complex for live fires, precluding the use of dud-producing ammunition. As the only available ammunition was dud producing, high-explosive rounds, we were limited to firing stationary main gun scenarios from one firing line. These limitations were welcomed, only because they allowed us to focus on target acquisition and crew drills before bounding and firing-on-the-move.

We began the first day of gunnery by zeroing/confirming boresights of the T-62 tanks. For the confirmation firing, each crew received three rounds. As soon as a tank hit a target at 1500 meters, we moved that tank from the range and allowed the next vehicle to fire. If the tank had problems with the first two rounds, we would send the contracted Afghan turret mechanics or the Romanian experts to the tank to confirm that the crew had boresighted properly. Most of the problems with first-round hits were due to improper boresight or a mechanical problem with the tank. After a full day of confirming boresights, over 80 percent of the available tanks verified their boresights with hits on a 1500-meter tank hull.

The biggest issue during this first day was controlling the range. As embedded trainers, we wanted the Afghan armor companies to learn to run their own ranges without the embedded trainers completely taking over the range. This goal proved unattainable during the first day because the Afghans did not have proper radio control between the tower and the tanks. We found ourselves chasing tanks whose crews decided to move from the staging area, past the ammunition point, and directly to the firing line without talking to the tower. (The tower was a folding table with multiple radios). We held an in-depth after-action review following the completion of day 1 firing. After moving tanks around the range for the afternoon following the loss of control by the Afghan tower, the trainer team advisors explained range operations again to Afghan leaders to prevent repeating the first day's growing pains. After analyzing these problems, our team concluded we could have avoided these problems by conducting a mounted rehearsal of range operations with the Afghan leaders.

On day 2 of gunnery, focus shifted from zeroing the main gun to 12.7mm DShK familiarization. The Romanians and Afghans had helped teach classes on this weapon, but we found during the initial firing that the weapons were not functioning efficiently and needed some work by the Romanian weapons experts. We also determined that the Afghans were not as well versed in this machine gun as with their coaxial. For example, after close inspection of the ammunition belts, we determined that the Afghans had made a minor error in loading the ammunition belts, which was causing the weapons to fire single shot. One lesson learned for future trainers in various countries is to insist on receiving training on various weapons and vehicles in the country's inventory prior to arriving in country.

Our trainer team received familiarization classes on the weapons when we arrived in country, but we were not experts and relied heavily on the Romanian trainers.

In the afternoon on day 2, we began Tank Table IV, tank crew proficiency course (TCPC). The in-depth rehearsals for the tank tables we would fire on day 3 proved highly effective as a rehearsal for the qualification table. The trainer team walked the platoon leaders through the TCPC scenarios (the same scenarios we were using for actual firing) by sitting on the tanks and pointing out exactly at which targets to fire. After they trained a number of key leaders, these key leaders trained the other crews. This method forced the key Afghan leaders to master the Table VI scenarios. After completing the leader training, the TCPC lanes moved very quickly and the rest of the 16 crews completed their proficiency course.

The highlight of this second day of training was the improved control of the range by the Afghan leaders. Our after-action review achieved its purpose as the range support company established a radio plan for controlling movement on the range. They emplaced one radio at the tank parking line, one radio at the ammunition point, one radio at a control point, one radio at the firing line, and multiple radios at the tower. A tank received orders to move from the support area to the ammunition point, then to the control point, and finally on to the firing line. The Afghans insisted on moving four tanks on-line, after passing the control point, and parking four tanks on the concrete pads simultaneously. We were very pleased with the control of the range after these minor adjustments by the Afghan supporting and firing companies.

On day 3, the qualification run began with high hopes for firing the entire company in one day. The qualification day, though, began later than desired due to the recurring problem of timely boresighting. The Afghan leaders decided to boresight on the four "level" concrete pads to ensure accuracy. Hence, the tanks had to move through the various control points in groups of four to the concrete pads, which took longer than desired. Therefore, the company did not start firing until mid-morning.

Second, a large herd of sheep wandered onto the range just as the range prepared to go hot. This herd allowed the trainer team to receive job-training experience in herding sheep. Accompanied by a couple of Afghan soldiers, the trainer team members raced onto the range in their SUV to ask the shepherd to move his large flock off the range. The shepherd took one look at the American and Afghan soldiers with their weapons and took off running. Thus, we had to move the herd off the range, which may be a future calling for some members on our team. I expect that other teams throughout Afghanistan or Iraq may encounter similar difficulties with local wildlife.

After clearing the range, we began the qualification run with a live-fire rehearsal for the entire company. Because the idea of gunnery was so new for the Afghan tankers, the trainer team embedded advisors decided to have the company commander fire the entire scenario for his soldiers as a makeshift rehearsal. We gathered the entire company just behind the firing line and explained each scenario to the tankers as the commander fired. This rehearsal process proved very effective in focusing crews on which targets they should shoot in each scenario and gave us a chance to discuss points of improvement directly with the crews before they fired. The soldiers asked many questions that saved time later in the day. After the rehearsal, we moved the first tanks up to the firing line and began Table VI.

Table VI went fairly smooth, although we had a number of problems with crews trying to figure out why we were shooting a set scenario. The trainer team advisors had envisioned the four tanks firing in succession down the line, but the tower still did not understand the necessity of pushing tanks through the firing order. The Afghan commander did not have tanks waiting to occupy the firing pads when the others finished. He also did not have a comfortable tracking system for the scenarios, which would allow him to control the tanks on different scenarios. Thus, whenever a tank had a problem on the firing line, the tower waited for the crew to fix the problem before continuing. The Americans fixed this problem by taking over the range operation for a few hours and pushing tanks through the scenario to show Afghan leaders how the range could run when managed efficiently. Once again, a mounted rehearsal with four tanks would have prevented the trainer team from running the range and helped accomplish the higher goal of advising, rather than running the tank range.

The second day of qualification, day 4, was a huge improvement over the first day of Table VI. During our after-action review the day before, we challenged Afghan leaders to begin boresighting much earlier and have the first round downrange by 0900 hours. Much to our surprise, they fired their first round the next morning by 0855 hours. Another point of discussion during the after-action review was pushing crews through the scenarios with efficient and safe throughput. After seeing the trainer team coordinate tank movement on the range the day before,

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the Afghan leaders responded with an amazing change of pace the second day. The armor embedded trainers made numerous changes to the range that proved highly beneficial during the next day of qualification gunnery. First, we moved the tower close to the firing line so that the range officer in charge (OIC) could influence the firing line if a problem occurred. Moving leaders forward greatly increased safe tank throughput.

On day 1 of qualification, seven Afghan crews fired. On day 2, the Afghan company fired 16 crews including re-fires, and was completed with the range by 1500 hours. Rather than break for chow, the leaders rotated crews through lunch. Overall, the tank company fired 16 tanks during this first gunnery and qualified 13 of these tanks with four tanks having to refire.

Tank Table Scenarios and Scoring

Included are the gunnery tables we used for this first gunnery.

Table IV (rehearsal)/VI:

A1: Stationary flank tank @ 1300-1500 meters. Ammo allocation 2 rounds HE.

A2: Stationary frontal tank @ 800-1000 meters. Ammo allocation 2 rounds HE.

A3: Stationary frontal tank @ 1600-1800 meters. Ammo allocation 2 rounds HE.

A4: Stationary flank tank @ 900-1100 meters, stationary flank BMP @ 900-1100 meters. Ammo allocation 4 rounds HE.

Table V (coax machine gun):

A1: 1 set troops @ 400-600 meters. Ammo allocation 100 x 7.62mm.

A2: 2 set troops @ 400-600 meters. Ammo allocation 200 x 7.62mm.

A3: Moving, 2 set troops @ 400-600 meters. Ammo allocation 200 x 7.62mm.

A4: 1 set troops @ 400-600 meters. Ammo allocation 100 x 7.62mm.

A5: Moving, 2 sets troops @ 400-600 meters. Ammo allocation 200 x 7.62mm.

The constraints for this first gunnery were primarily due to logistics and range control issues. The Afghan soldiers fired Tables IV and VI, but not Table V because they did not have PKT coaxial machine guns. We did not feel the crews were properly trained to fire a complex scenario with the 12.7mm weapons system, and we also had to fight through issues with both machine gun and 12.7mm mounts. Therefore, we only conducted the 12.7mm familiarization due to safety concerns with the weapons. The team's master gunners prepared Table V scenario for future gunneries when we have the necessary coaxial machine guns. We had initially planned for moving engagements on Tables IV and VI to verify the working stabilization systems on the tanks, but sharing the range with dismounted infantry prevented us from using dud-producing ammunition.

To evaluate the crews on these tables, the trainer team decided to use a "T" (trained), "P" (proficient), and "U" (untrained) scoring system for the gunnery, rather than a numerical score. We also did not have the capability of using "jump" plugs on the radios to monitor the crew fire commands because the crews were using Russian radios. We had initially planned to time the crews but discarded the idea to focus on crew drills and safety. Therefore, we either scored the crew with a hit or miss on the target. If the crew hit the targets on the first round, we gave them a "T" for that engagement. If they hit the target with the second round, we gave them a "P" for the engagement. If they completely missed the target with both rounds, then they received a "U" for the engagement. For a crew to qualify, they needed to receive a "T" or "P" in three out of four scenarios. If they did not qualify, then the crew re-fired. Overall, 16 crews fired during the first gunnery. Thirteen of the crews qualified on a total of 23 runs. Some crews had to fire multiple times to qualify, but the majority performed well. We found that platoon leader and platoon sergeant tanks fired very well and qualified their first time down range. The younger crews had issues due to lack of experience or lack of focus on training for gunnery and had to re-fire in some cases.

During this first Afghan National Army T-62 gunnery, the Blackhorse armor embedded training team learned a great deal about how to train an army of experienced warriors who have been fighting for over a decade against both the Russians and the Taliban. Afghan army leaders did not always understand our methods of conducting a safe and efficient gunnery but with many hours of persistent training, coordination meetings, and after-action reviews, we saw them grasp and understand a new method of training soldiers for combat. It was extremely satisfying for the trainers to see the birth of an organized tank battalion over a 120-day period, from tanks that were pushed off trucks in the motor pool to organized firing crews on a gunnery range hitting targets at 1700 meters. During the actual gunnery, we saw them progress in four days from having no idea of tank range operations to having four tanks fire an engagement successively with mere seconds between shots. The Afghan soldiers gained confidence that their weapons system can fire and destroy targets, which is a necessity as they prepare to conduct real-world checkpoints and presence patrols within weeks.

Our armor embedded trainers experienced many frustrations as we prepared for this first gunnery. This gunnery, though, was not even close to our vision for what the Afghan National Army armor battalion can accomplish in the near future. We plan to continue to improve the gunnery train-up and execution and eventually reach the goal of firing at moving targets from a moving T-62 using thermals. As we gather the logistics resources and the Afghan crews become more confident on their tanks, we foresee this advanced gunnery becoming a reality. For those teams coming to Afghanistan or going to Iraq or other countries to help with nation-building, we encourage you to push through the frustrations and logistics/maintenance challenges because these armies have the potential to defend their newfound democracy with the weapons systems they possess.

We hope this short glimpse into our adventure allows you to avoid the mistakes we made and develop a plan far better than our own!

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